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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/639,072

08/11/2003

Tai-Cheng Yu

6951

25859

7590

12/16/2004

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EXAMINER

HAN, JASON

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/639,072

Applicant(s)

YU ET AL.

Examiner

Jason M Han

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/2003</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

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The following claims have been rejected in light of the specification, but have been rendered the broadest interpretation [MPEP 2111].

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### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4-5, and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi et al. (U.S. Patent 5408388).
3. With regards to Claim 1, Kobayashi discloses a planar illuminating device including:
  - a light source [Figure 1: (3)]; and
  - a light guide plate [Figure 1: (2)] having an incident surface [Figure 1: (2a)] for receiving light from the light source, a bottom surface [Figure 1: (22)], and a light emitting surface for emitting out the light [Figure 1: (21)], wherein the

light emitting surface has a contour in a shape of a plurality of prisms disposed continuously on the light emitting surface.

4. With regards to Claim 2, Kobayashi discloses a plurality of diffusion dots [Figures 1-2: (22)] disposed on the bottom surface of the light guide plate. It should be noted that though Kobayashi refers to the above-identified element as reflecting spots, the spots clearly diffuse the light emitted from the sources. To corroborate, Merriam-Webster's Collegiate Dictionary [Tenth Edition] defines diffuse – v – 1a: to pour out and permit or cause to spread freely b: extend, scatter c: to spread thinly or wastefully.
5. With regards to Claim 4, Kobayashi discloses the light source [Figure 1: (3)] disposed at one side of the incident surface of the light guide plate [Figure 1: (2a)].
6. With regards to Claim 5, Kobayashi discloses the light guide plate [Figure 1: (2)] in the shape of a rectangle.
7. With regards to Claim 7, Kobayashi discloses the diffusion dots [Figures 1-2: (22)] being more densely distributed on the bottom surface as a distance away from the incident surface increases [as portrayed in Figure 2 from one edge towards the middle].
8. With regards to Claim 8, Kobayashi discloses the diffusion dots [Figures 1-2: (22)] being distributed evenly all over the bottom surface. It should be noted that the limitation does make mention of the size of the dots, thus the reference clearly reads upon the limitation with respect to an even distribution all over the bottom surface. Such a configuration is a matter of design choice and is commonly known within the art.
9. Claims 9-10, 12, and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi et al. (U.S. Patent 5408388).

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10. With regards to Claim 9, Kobayashi discloses a light guide plate [Figure 1: (2)] including:

- an incident surface [Figure 1: (2a)] for receiving light;
- a bottom surface [Figure 1: (22)]; and
- a light emitting surface for emitting light [Figure 1: (21)], wherein the light emitting surface has a contour in a shape of a plurality of prisms disposed continuously on the light emitting surface.

11. With regards to Claim 10, Kobayashi discloses a plurality of diffusion dots [Figures 1-2: (22)] disposed on the bottom surface of the light guide plate. It should be noted that though Kobayashi refers to the above-identified element as reflecting spots, the spots clearly diffuse the light emitted from the sources. To corroborate, Merriam-Webster's Collegiate Dictionary [Tenth Edition] defines diffuse – v – 1a: to pour out and permit or cause to spread freely; b: extend, scatter; c: to spread thinly or wastefully.

12. With regards to Claim 12, Kobayashi discloses the light guide plate [Figure 1: (2)] in the shape of a rectangle.

13. With regards to Claim 14, Kobayashi discloses the diffusion dots [Figures 1-2: (22)] being more densely distributed on the bottom surface as a distance away from the incident surface increases [as portrayed in Figure 2 from one edge towards the middle].

14. With regards to Claim 15, Kobayashi discloses the diffusion dots [Figures 1-2: (22)] being distributed evenly all over the bottom surface. It should be noted that the limitation does make mention of the size of the dots, thus the reference clearly reads

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upon the limitation with respect to an even distribution all over the bottom surface. Such a configuration is a matter of design choice and is commonly known within the art.

15. Claims 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi et al. (U.S. Patent 5408388).

16. With regards to Claim 16, Kobayashi discloses a planar illuminating device including:

- a light source [Figure 1: (3)];
- a light guide plate [Figure 1: (2)] having an incident surface [Figure 1: (2a)] facing the light source for receiving light;
- a light emitting surface [Figure 1: (21)] for emitting out the light;
- a plurality of tapered prisms [Figure 1: (21)] including respective vertex portions formed on the light emitting surface; and
- a plurality of diffusion dots disposed on a bottom surface opposite to the emitting surface [Figures 1-2: (22)].

17. With regards to Claim 17, Kobayashi discloses the diffusion dots [Figures 1-2: (22)] being more densely distributed on the bottom surface as a distance away from the incident surface increases [as portrayed in Figure 2 from one edge towards the middle].

18. With regards to Claim 18, Kobayashi discloses the prisms being evenly distributed all over the emitting surface [Figure 1: (21); Column 4, Lines 39-44].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (U.S. Patent 5408388) as applied to Claim 1 above, and further in view of Teragaki et al. (U.S. Patent 6123431).

Kobayashi discloses the claimed invention as cited above, but does not specifically teach the prisms being in the shape of a pyramid.

Teragaki teaches a light guide plate incorporating prisms in the shape of pyramids [Figures 21-25].

It is obvious that the prismatic surfaces of both Kobayashi and Teragaki are functionally equivalent and is considered a matter of design preference. Such prism surfaces made up of pyramids are also commonly known within the art.

20. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (U.S. Patent 5408388) as applied to Claim 1 above.

Kobayashi discloses the claimed invention, but does not specifically teach in the embodiment of the rejection for Claim 1 a light guide plate in the shape of a wedge.

However, Kobayashi does teach a wedge shaped light guide plate [Figure 6: (7)], which are commonly known within the art.

It is obvious that the above limitation is a matter of design choice with respect to the shape of the light guide and optics.

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21. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (U.S. Patent 5408388) as applied to Claim 9 above, and further in view of Teragaki et al. (U.S. Patent 6123431).

Kobayashi discloses the claimed invention as cited above, but does not specifically teach the prisms being in the shape of a pyramid.

Teragaki teaches a light guide plate incorporating prisms in the shape of pyramids [Figures 21-25].

It is obvious that the prismatic surfaces of both Kobayashi and Teragaki are functionally equivalent and is considered a matter of design preference. Such prism surfaces made up of pyramids are also commonly known within the art.

22. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (U.S. Patent 5408388) as applied to Claim 9 above.

Kobayashi discloses the claimed invention, but does not specifically teach in the embodiment of the rejection for Claim 1 a light guide plate in the shape of a wedge.

However, Kobayashi does teach a wedge shaped light guide plate [Figure 6: (7)], which are commonly known within the art.

It is obvious that the above limitation is a matter of design choice with respect to the shape of the light guide and optics.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



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The following references have been cited to further show the state of the art pertinent to the current application, but may not be exhaustive:

US Patent 5377084 to Kojima et al;	US Patent 5386347 to Matsumoto;
US Patent 5467417 to Nakamura et al;	US Patent 5550676 to Ohe et al;
US Patent 5703667 to Ochiai;	US Patent 5709447 to Murakami et al;
US Patent 5730518 to Kashima et al;	US Patent 5735590 to Kashima et al;
US Patent 5886759 to Mashino et al;	US Patent 5951138 to Ishikawa et al;
US Patent 6024463 to Ishikawa et al;	US Patent 6181391 to Okita et al;
US Patent 6231200 to Shinohara et al;	US Publication 2001/0006574 to Umemoto;
US Patent 6345899 to Ohkawa et al;	US Patent 6366409 to Umemoto et al;
US Patent 6366409 to Umemoto et al;	US Publication 2002/0181224 to Tahara et al;
US Patent 6554440 to Umemoto et al;	US Patent 6585386 to Yano et al;
US Publication 2003/0156404 to Lee;	US Publication 2003/0214812 to Bourdelais et al.

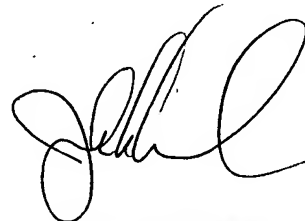
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M Han whose telephone number is (571) 272-2207. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMH (12/1/2004)

A handwritten signature in black ink, appearing to read 'JAW', with a large, stylized loop at the end.

**JOHN ANTHONY WARD**  
**PRIMARY EXAMINER**